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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,842	08/24/2001	Jeffrey F. Harper	SCRIP1300-3	1099

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EXAMINER

MARTINELL, JAMES

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,842

Applicant(s)

HARPER ET AL.

Examiner

James Martinell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,29,30,32-59,66-70,75 and 80-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 46-55,57-59,67,68 and 80-86 is/are allowed.
- 6) ☒ Claim(s) 1,29,30,32-45,56,66,69,70 and 75 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 32-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims are not enabled because the instant application does not disclose or teach the functional portions of the amino acid sequences encoded by any of the SEQ ID NOs mentioned in the claims that comprise a contiguous amino acid sequence of the polypeptide having the activity of the full length polypeptide or having antagonist activity with respect to the full length polypeptide (*e.g.*, see claim 32). The CAFC in *In re Wands* (*In re Wands*, 8 USPQ2d 1400, Fed Cir. 1988) listed various factors to be considered in determining enablement. They include:

- (1) The quantity of experimentation necessary
- (2) The amount of direction or guidance presented
- (3) The presence or absence of working examples
- (4) The nature of the invention
- (5) The state of the prior art
- (6) The relative skill of those in the art
- (7) The predictability of the art
- (8) The breadth of the claims

Each of these factors is discussed below.

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The quantity of experimentation necessary

A large number of long nucleotide sequences are mentioned in the claims and to determine the fully functional polypeptides encoded by each and all would involve a great deal of tedious and difficult experimentation.

The amount of direction or guidance presented

No guidance as to which contiguous regions of any of the polypeptides encoded by the polynucleotides mentioned in the claims may have full function of the corresponding native polypeptide is given in the instant application.

The presence or absence of working examples

There are no working examples relevant to which contiguous regions of any of the polypeptides encoded by the polynucleotides mentioned in the claims may have full function of the corresponding native polypeptide is given in the instant application.

The nature of the invention

The invention deals with the fields of molecular biology, molecular cloning, biochemistry, and transgenic plant production.

The state of the prior art

There is no prior art of record in connection with either one of SEQ ID NOs: 1034 or 3729.

The relative skill of those in the art

The relative skill of those in the art is high. The person with skill in the art most likely in possession of a Ph.D. degree and at least some post-doctoral research experience.

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The predictability of the art

There is no predictability relevant to which contiguous regions of any of the polypeptides encoded by the polynucleotides mentioned in the claims may have full function of the corresponding native polypeptide is given in the instant application.

The breadth of the claims

The claims are broad in that they embrace many thousands of embodiments.

After consideration of all of these factors, the claims are deemed not enabled for their full scope.

Claims 1, 29, 30, 32-45, 56, 66, 69, 70, and 75 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- (a) The recitation of representative of expressed polynucleotides in cells of the test plant" (claim 1) is vague and indefinite because it is not clear what sample might or might not be representative. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 2, item (a)). Applicants' assertions that one of skill in the art would know what the phrase means (response filed July 6, 2004, pages 13-14) are not convincing.
- (b) The recitation of "as compared to a level of selective hybridization obtained using nucleic acid molecules representative of expressed polynucleotides in cells of a plant known not have [sic] been exposed to an abiotic stress" (claim 1) is vague and indefinite because it is not clear what sample might or might not be representative. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 2, item (b)). Applicants' assertions that one of skill in the art

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would know what the phrase means (response filed July 6, 2004, pages 13-14) are not convincing.

- (c) The recitation of "polynucleotide portion" (claims 29, 43, and 45) is vague and indefinite because no lower limit is set forth for the "portion". This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 2, item (c)). Applicants' assertion that one of skill in the art would know what the lower limit is (response filed June 28, 2004, page 14) is not convincing.
- (d) The recitation of functional peptide portion thereof" (claims 32, 33, and 34) is vague, indefinite, and incomplete because the instant application does not disclose or define what a functional portion of the peptide is. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 2, item (d)). Applicants' assertion (response filed June 28, 2004, paragraph bridging pages 14-15) is not convincing because what the application describes at paragraph 160, page 82 is a wish or a goal and not a functional portion of a protein encoded by any of the SEQ ID NOs mentioned in the claims.
- (e) The recitation of "detectable marker" (claim 41) is vague and indefinite because the instant application does not distinguish between a detectable marker and an undetectable marker. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 3, item (h)). Applicants' argument (response filed June 28, 2004, paragraph bridging pages 15-16) is not convincing. Applicants themselves recognize the indefiniteness in noting that something that is not detectable cannot be a marker. Applicants may consider whether the adjective is necessary since it adds nothing to the meaning of the claim.
- (f) The recitation of "improves the nutritional value" (claims 56 and 69) is vague, indefinite, and incomplete because the instant application does not define what is meant by "improves". This rejection is repeated for reasons already of record (e.g.,

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Office action mailed March 2, 2004, page 3, item (n)). Applicants have not addressed this part of this rejection.

- (g) The recitation of "improves the . . . ornamental value" (claim 56) is vague, indefinite, and incomplete because the instant application does not define what is meant by "improved". This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 4, item (o)). Applicants have not addressed this part of this rejection.
- (h) The recitation of representative of an expressed polynucleotide" (claim 56) is vague and indefinite because it is not clear what sample might or might not be representative. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 4, item (q)). Applicants' assertions that one of skill in the art would know what the phrase means (response filed July 6, 2004, pages 13-14) are not convincing.
- (i) The recitation of "improves the ornamental value" (claim 70) is vague, indefinite, and incomplete because the instant application does not define what is meant by "improves". This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 4, item (s)). Applicants have not addressed this part of this rejection.
- (j) The recitation of "representative of expressed polynucleotides in plant cells" (claim 75) is vague and indefinite because it is not clear what sample might or might not be representative. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 4, item (t)). Applicants' assertions that one of skill in the art would know what the phrase means (response filed July 6, 2004, pages 13-14) are not convincing.
- (k) The recitation of "array of probes representative of the plant cell genome" (claim 75) is vague and indefinite because it is not clear what sample might or might not be

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representative. This rejection is repeated for reasons already of record (e.g., Office action mailed March 2, 2004, page 4, item (u)). Applicants' assertions (response filed June 28, 2004, page 18) are not convincing because applicants do not point with any specificity to the teaching asserted to be in the specification.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 46-55, 57-59, 67, 68, and 80-86 are allowable over the prior art of record.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Martinell whose telephone number is (571) 272-0719. The fax phone number for Examiner Martinell's desktop workstation is (571) 273-0719. The examiner works a flexible schedule and can be reached by phone and voice mail. Alternatively, a request for a return telephone call may be e-mailed to james.martinell@uspto.gov. Since e-mail communications may not be secure, it is suggested that information in such requests be limited to name, phone number, and the best time to return the call.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (571) 272-0722.

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PLEASE NOTE THE NEW FAX NUMBER

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.


James Martinell, Ph.D.
Primary Examiner
Art Unit 1631
9/27/04